



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,564	01/16/2002	Andreas Manz	550-308	1784

23117 7590 12/02/2003

NIXON & VANDERHYE, PC
1100 N GLEBE ROAD
8TH FLOOR
ARLINGTON, VA 22201-4714

EXAMINER

THERKORN, ERNEST G

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 12/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/046,564

Applicant(s)

MANZ ET AL.

Examiner

Ernest G. Therkorn

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-20,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-20,22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, and 7-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024). At best, the claims differ from Henderson (U.S. Patent No. 6,258,263) in reciting the particular micropump. Miyazaki (E.P. 568,024) (column 1, line 53-column 2, line 7) discloses a micropump that gasifies the liquid is very compact, has no dead space, and does not pulsate the flow. It would have been obvious to use a micropump that gasifies the liquid in Henderson (U.S. Patent No. 6,258,263) because Miyazaki (E.P. 568,024) (column 1, line 53-column 2, line 7) discloses a micropump that gasifies the liquid is very compact, has no dead space, and does not pulsate the flow.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024) as applied to

Art Unit: 1723

claims 1, 5, and 7-19 above, further in view of Zare (U.S. Patent No. 6,136,187). At best, the claims differ from Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024) in reciting use of a gas flow unit. Zare (U.S. Patent No. 6,136,187) (column 4, lines 52-58) discloses use of a reduction in gas pressure aids evaporation. It would have been obvious to reduce gas pressure in Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024) because Zare (U.S. Patent No. 6,136,187) (column 4, lines 52-58) discloses use of a reduction in gas pressure aids evaporation.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024) as applied to claims 1, 5, and 7-19 above, further in view of either Sutton (U.S. Patent No. 6,103,112) or Overton (U.S. Patent No. 6,068,684). At best, the claim differs from Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024) in reciting use of a cooler. Sutton (U.S. Patent No. 6,103,112) (column 13, lines 36-40) discloses that use of a Peltier heater/cooler allows reaching and maintaining temperature. Overton (U.S. Patent No. 6,068,684) (column 8, lines 10-18) discloses that use of a Peltier cooler allows temperature programming. It would have been obvious to use a cooler in Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024) either because Sutton (U.S. Patent No. 6,103,112) (column 13, lines 36-40) discloses that use of a Peltier heater/cooler allows reaching and maintaining temperature or because Overton (U.S. Patent No. 6,068,684) (column 8, lines 10-18) discloses that use of a Peltier cooler allows temperature programming.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024) as applied to claims 1, 5, and 7-19 above, and further in view of Hatch (U.S. Patent No. 6,238,565). At best, the claim differs from Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024) in reciting use of a monolith. Hatch (U.S. Patent No. 6,238,565) (column 4, lines 24-26 and 62-66) discloses that with its ease of manufacturing and lack of bead shifting monoliths provide a surprising advantage over existing technology and may fill a channel in a plate. It would have been obvious to use a monolith in Henderson (U.S. Patent No. 6,258,263) in view of Miyazaki (E.P. 568,024) because Hatch (U.S. Patent No. 6,238,565) (column 4, lines 24-26 and 62-66) discloses that with its ease of manufacturing and lack of bead shifting monoliths provide a surprising advantage over existing technology and may fill a channel in a plate.

Claims 22 and 23 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Balling (Planta (199) 182:325-338). The claims are considered to read on Balling (Planta (199) 182:325-338). The inlets are considered to read on the root structure. The outlets are considered to read on the leaf structure. However, if a difference exists between the claims and Balling (Planta (199) 182:325-338), it would reside in optimizing the elements of Balling (Planta (199) 182:325-338). It would have been obvious to optimize the elements of Balling (Planta (199) 182:325-338 to enhance fluid transportation.

Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prohaska (U.S Patent No. 5,116,495) in view of Miyazaki (E.P. 568,024). At best,

the claims differ from Prohaska (U.S Patent No. 5,116,495) in reciting the particular pump. Miyazaki (E.P. 568,024) (column 1, line 53-column 2, line 7) discloses a micropump that gasifies the liquid is very compact, has no dead space, and does not pulsate the flow. It would have been obvious to use a micropump that gasifies the liquid in Prohaska (U.S Patent No. 5,116,495) because Miyazaki (E.P. 568,024) (column 1, line 53-column 2, line 7) discloses a micropump that gasifies the liquid is very compact, has no dead space, and does not pulsate the flow.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

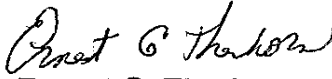
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later

Application/Control Number: 10/046,564
Art Unit: 1723

Page 6

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to E. Therkorn at
telephone number (703) 308-0362.


Ernest G. Therkorn
Primary Examiner
Art Unit 1723

EGT
November 25, 2003